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## THE SCIENTIFIC WORK OF ALBERT PITTS MORSE

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Albert Pitts Morse, best known for his work on the Orthoptera of New England, was born in Sherborn, Massachusetts, on February 10, 1863. He was a direct descendant of Samuel Morse of Dedham, whose son Daniel became one of the incorporators of the town of Sherborn in 1674. His father, Leonard Townsend Morse, was prominent in town affairs for many years.

As a boy, Mr. Morse attended the local schools, graduating from the Sawin Academy of Sherborn in 1879. He was unfortunately prevented from acquiring additional schooling by lack of robust health and the need of his services at home. Early attracted by the beauty of nature and endowed with an inquiring mind, he began to collect specimens, study taxidermy, and become acquainted with the wild life in his vicinity, a district rich in natural resources. He was encouraged and aided in these pursuits by several local naturalists and collectors, among whom should be mentioned Amory L. Babcock and Edgar J. Smith of Sherborn, and William Edwards of South Natick.

At the age of 23 he abandoned farming as a livelihood and took up draughting, a vocation which he followed for several years. After the death of his parents in 1886 and 1888, he accepted a position as assistant in the Zoölogical Department of Wellesley College, with which institution he was connected in different capacities for more than 45 years (until 1933). As collector and instructor, he served the students and teachers in various ways, developed the mu-

seum, and lectured on elementary and systematic zoölogy and entomology. During the first part of this period he attended the summer school of the Marine Biological Laboratory at Woods Hole, took a long summer course in entomology at Cornell University under Professor J. H. Comstock, and made extensive collections of New England insects, paying particular attention to the Orthoptera and Odonata, in which orders he discovered and described many new species.

In 1893 Mr. Morse married Miss Annie McGill of Dover. They lived in Sherborn until 1900, and then moved to Wellesley.

In 1897, with the encouragement of Mr. S. H. Scudder, Mr. Morse undertook a summer's trip to the Pacific Coast to collect the Orthoptera of that region. He returned with several thousand specimens including representatives of many new species most of which were described by Mr. Scudder.

In 1901, at the request of Professor Alpheus Hyatt, he reorganized the instruction in zoölogy of the Teachers' School of Science of the Boston Society of Natural History, combining a series of field trips each spring and fall with a winter term of laboratory work, in a four year course. This was successfully conducted for two periods of four years, each of which included a year of entomology. The purpose of these lessons was to equip the teacher of biology in secondary schools with a practical as well as theoretical knowledge of the subject. Their success was attested by the numbers which attended and the affection and loyalty of the students.

In 1903 and again in 1905, Mr. Morse was appointed Research Assistant by the Carnegie Institution of Washington and awarded a fund to be expended in the study of the Orthoptera of the southern United States. With this assistance he made two field trips covering the region from Virginia to Texas, as a result of which he wrote two reports on the grasshopper fauna and its ecology.

During a portion of the summer vacations from 1909 to 1912, Mr. Morse taught natural history to the boys, girls, and teachers of Woodstock, Vermont, under the patronage of Miss Elizabeth Billings of that town, and then, at her sug-

gestion and with her support, devoted his spare time for several seasons to the preparation of an excellent monograph on the New England Orthoptera. This volume of 350 pages was published by the Boston Society of Natural History in 1920.

In January, 1911, Mr. Morse became connected with the Peabody Museum of Salem, at first in charge of insects only, and later (December of the same year) as Curator of Natural History, though devoting only part of his time to that institution until 1926. In 1920 he spent a month in field work on the Orthoptera of Maine, subsequently preparing a report on this subject for the Maine Agricultural Experiment Station. From 1919 to 1923, at least a part of his summer vacation was spent, mainly in Nebraska, in a study of the food habits of grasshoppers with reference to their attacks on binder-twine. In 1926 he became a trustee of the Ropes Memorial of Salem, serving on the committee on grounds and as chairman of the committee on botanical lectures, which during his incumbency were largely arranged by him.

In 1934 his health began to fail, and after February, 1935, he was forced to give up his regular work at the Peabody Museum. His death occurred at Wellesley on April 29, 1936. He is survived by his wife, two children, and four grandchildren.

Mr. Morse was a fellow of the American Association for the Advancement of Science and of the Entomological Society of America, and a member of the following organizations: the Boston Society of Natural History, Morse Science Club of Salem (twice President), American Association of Economic Entomologists, Cambridge Entomological Club (President 1898, 1914, 1923, 1933-34), American Ornithologists' Union, Essex County Ornithological Club (Vice-president from its inception until 1934, then President until his death), Massachusetts Audubon Society, New England Bird-banding Association, Nuttall Ornithological Club, American Fern Society, New England Botanical Club (Vice-president 1928-1931), and the Massachusetts Horticultural Society.

Mr. Morse's private collection of insects, which contained more than fifty thousand specimens and included many types, was acquired by the Museum of Comparative Zoölogy at

Harvard College during the academic year 1920-21. The museums at Boston and Salem also possess many specimens which he collected personally. Some of his material bears one or more of the following printed labels:

Coll. A. P. M.	Essex Co.	Coll. P. M.
Lot	Lot	Lot
No.		No.

The numbers to be found on the first of these labels are explained in a manuscript notebook at the Museum of Comparative Zoölogy. The key to those on the second and third labels is contained in another notebook at the Peabody Museum of Salem. The data for all of the lots is available at both of the above museums, and also at the Boston Society of Natural History. It should be noted that these labels sometimes indicate only the authority who determined the material, and that the Essex County label does not necessarily mean that the specimen with which it is pinned was collected in that locality.

Mr. Morse was above all a lover of nature with a remarkable knowledge of natural history. The members of the Cambridge Entomological Club, at whose meetings he was a constant and welcome attendant, greatly miss his presence and his interesting, often humorous, contributions. He was an accurate observer and meticulous in attention to detail. Few men with as little formal training are able to command so much respect for their scientific work.

The following bibliography contains most of Mr. Morse's published writings. It does not include the articles which he contributed to newspapers, or a record of the many notes and exhibits which he presented at meetings of the Cambridge Entomological Club. The latter may be found in various issues of *PSYCHE*.

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## NEW SPECIES OF EXOTIC SYRPHID FLIES

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Some time ago, Professor Nathan Banks placed in my hands for study an interesting collection of Syrphid flies that had accumulated in the collections of the Museum of Comparative Zoölogy. These flies have come from many sections of the world and, as was to be expected, include a number of new species, the descriptions of which are presented in this paper. Notes on the occurrence and distribution of other species will perhaps be published at a later date. I wish to thank Prof. Banks for the opportunity of studying this interesting assortment of Syrphids as well as for the facilities for study in the Museum which he so kindly placed at my disposal.

*Meromacrus melmoth* n. sp.

Male. Eyes narrowly joined. Vertex slightly raised, black. Face and front black, conspicuously yellowish white pilose along the sides of the front, on the eye margins, running down the sides of the eyes and thence to the oral margin as a diagonal facial stripe. This leaves the face obscurely shining black, the black as a V-shaped wedge below antennæ, reaching to oral margin, its widest part at the base of the antennæ. Cheeks shining blackish. The facial stripe beneath the sparse pile is whitish pruinose and much more conspicuous than the pile. The pile on the sides of the front assumes the curious appressed character typical of the genus. Occiput and lower part of vertical triangle below the ocelli, similarly colored, pilose and pruinose. Face somewhat carinate. Antennæ blackish brown, the third joint lighter brown, extraordinarily truncated dorso-apically and coming to a rounded point, the arista basally thickened, yellow, quite pale at tip, and twice as long as the third joint.

Thorax, pleuræ, and scutellum dull black, except that the

latter has a brownish rim. The markings unfortunately obscured by poor preservation but a yellow tomentose spot on the inner medial angles of humeri, a vertical narrow similar stripe on the middle of pleuræ, and some evidence of the same on the posterior calli. Halteres brownish; stalk darker.

Abdomen black, very dark brown laterally and on the posterior half of the last segment and the hypopygium, covered with microscopically short, black bristles, some scattered short pale pile, and a transverse narrow band of pale tomentum on the post border of first segment.

Legs black, tarsi brown, the femora covered with thick, quite long, pale, very fine hair. Hind femora extraordinarily thick.

Wings with a strong black anterior border, the black keeping to the configuration of the third longitudinal vein, but filling the anterior part of the first basal and the first posterior cells, and the loop of the third longitudinal vein is filled, but bears a small clear spot.

Length 15mm.

One male. Bolivia. Province of Sara (Steinbach). Type in the Museum of Comparative Zoölogy.

This peculiar species is very close to *Meromacrus niger* Sack, from which it differs in the extraordinarily thickened hind femora besides other characters. The dull black color and femora serve to distinguish it.

### *Velocimyia* n. gen.

Small flies. Eyes bare, touching in male for a short distance. Face and front heavily pubescent and with some longer pile on the former. Face with a very low weak tubercle on bump in the middle, the lower face bluntly conical. Antennæ of the simple Eristaliform type; arista bare, basally thickened. Thorax simple. Scutellum small, two or three times as wide as long, and without margin. Abdomen tapering posteriorward, but four segments and tip of hypogynium visible. The last segment of the abdomen together with the hypopygium wide, round, exceptionally prominent and conspicuous. In this respect the form resembles the new world *Meromacrus*.